

IN THE CLAIMS

1-24 (Canceled)

Please add the following new claims:

25. (Previously Presented) An operational amplifier, comprising:
- an active virtual ground input providing low input impedance and receiving an input current;
- a high impedance point receiving the input current from the input, providing a large open loop direct current gain, and producing a voltage; and
- a transconductance output stage buffering the voltage produced at the high impedance point and biased by an external resistive load.
26. (New) The operational amplifier of Claim 25, including an amplifier stage coupled between said active virtual ground input and said high impedance point.
27. (New) The operational amplifier of Claim 26, including one of an N-channel transistor and a P-channel transistor coupled between said amplifier stage and said high impedance point.
28. (New) The operational amplifier of Claim 27, wherein said transistor has a gate coupled to said amplifier stage, a drain coupled to said high impedance point, and a source coupled to said active virtual ground input.

29. (New) An operational amplifier, comprising:
- a first N-channel transistor having a gate, a drain and a source;
 - a node for connection to a reference potential;
 - a first current source coupled between said node and said source of said first N-channel transistor;
 - a first amplifier stage having an input coupled to said source of said first N-channel transistor and having an output coupled to said gate of said first N-channel transistor; and
 - a second amplifier stage having an input coupled to said drain of said first N-channel transistor.
30. (New) The operational amplifier of Claim 29, including a further node for connection to a positive power supply, and a second current source coupled between said further node and said drain of said first N-channel transistor.
31. (New) The operational amplifier of Claim 30, wherein said first amplifier stage is an inverting amplifier stage that includes a second N-channel transistor having a gate coupled to said source of said first N-channel transistor, having a source coupled to said reference potential node, and having a drain that defines said output of said first amplifier stage.
32. (New) The operational amplifier of Claim 31, including a third current source coupled to said drain of said second N-channel transistor.

33. (New) The operational amplifier of Claim 32, including a fourth current source, said second amplifier stage including a third N-channel transistor having a gate that defines said input of said second amplifier stage, having a source coupled to said fourth current source, and having a drain coupled to said positive power supply node.

34. (New) The operational amplifier of Claim 33, wherein said second amplifier stage includes a fourth N-channel transistor having a gate coupled to said source of said third N-channel transistor, having a source coupled to said reference potential node, and having a drain which defines an output of said second amplifier stage.

35. (New) An operational amplifier, comprising:
- a P-channel transistor having a gate, a drain, and a source;
 - a node for connection to a positive power supply;
 - a first current source coupled between said node and said source of said P-channel transistor;
 - a first amplifier stage having an input coupled to said source of said P-channel transistor and having an output coupled to said gate of said P-channel transistor; and
 - a second amplifier stage having an input coupled to said drain of said P-channel transistor.
36. (New) The operational amplifier of Claim 35, including a further node for connection to a reference potential, and a second current source coupled between said further node and said drain of said P-channel transistor.

37. (New) An electrical signal frequency filter, comprising:
- an N-channel transistor having a gate, a drain and a source;
 - a node for connection to a reference potential;
 - a current source coupled between said node and said source of said N-channel transistor;
 - a first amplifier stage having an input coupled to said source of said N-channel transistor and having an output coupled to said gate of said N-channel transistor;
 - a second amplifier stage having an input coupled to said drain of said N-channel transistor and having an output; and
 - a capacitor coupled between said input of said second amplifier stage and said output of said second amplifier stage.
38. (New) The filter of Claim 37, provided as a low pass filter.
39. (New) The filter of Claim 38, including a resistor coupled between said source of said N-channel transistor and said output of said second amplifier stage.
40. (New) The filter of Claim 39, wherein said N-channel transistor, said node, said current source, and said first and second amplifier stages constitute an operational amplifier, and wherein said resistor and said capacitor are cooperable for establishing a unity gain frequency of said operational amplifier that is less than twice a cutoff frequency of said low pass filter.

41. (New) An electrical signal frequency filter, comprising:
- a P-channel transistor having a gate, a drain, and a source;
 - a node for connection to a positive power supply;
 - a current source coupled between said node and said source of said P-channel transistor;
 - a first amplifier stage having an input coupled to said source of said P-channel transistor and having an output coupled to said gate of said P-channel transistor;
 - a second amplifier stage having an input coupled to said drain of said P-channel transistor, and having an output; and
 - a capacitor coupled between said input of said second amplifier stage and said output of said second amplifier stage.
42. (New) The filter of Claim 41, provided as a low pass filter.
43. (New) The filter of Claim 42, including a resistor coupled between said source of said P-channel transistor and said output of said second amplifier stage.
44. (New) The filter of Claim 43, wherein said P-channel transistor, said node, said current source, and said first and second amplifier stages constitute an operational amplifier, and wherein said resistor and said capacitor are cooperable for establishing a unity gain frequency of said operational amplifier that is less than twice a cutoff frequency of said low pass filter.